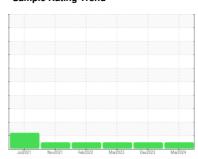


OIL ANALYSIS REPORT

Sample Rating Trend







Machine Id 369M Component

Diesel Engine

PETRO CANADA DURON SHP 15W40 (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil

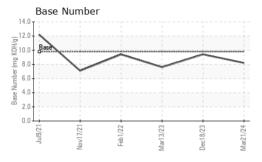
Fluid Condition

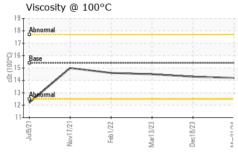
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

GAL)		Jul2021	Nov2021 Feb2022	Mar2023 Dec2023	Mar2024	
SAMPLE INFORI	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		GFL0108758	GFL0105712	GFL0073918
Sample Date		Client Info		21 Mar 2024	18 Dec 2023	13 Mar 2023
Machine Age	hrs	Client Info		14412	12905	12065
Oil Age	hrs	Client Info		0	12065	10365
Oil Changed		Client Info		Not Changd	Not Changd	Changed
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINAT	ION	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
WEAR METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	14	4	95
Chromium	ppm	ASTM D5185m	>20	0	<1	3
Nickel	ppm	ASTM D5185m	>4	0	0	<1
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	2	2	7
Lead	ppm	ASTM D5185m	>40	0	0	1
Copper	ppm	ASTM D5185m	>330	0	12	12
Tin	ppm	ASTM D5185m	>15	0	0	1
Antimony	ppm	ASTM D5185m				
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
Cadmium ADDITIVES	ppm	ASTM D5185m method	limit/base	o current	0 history1	0 history2
	ppm		limit/base			
ADDITIVES		method		current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185m	0	current	history1	history2
ADDITIVES Boron Barium	ppm	method ASTM D5185m ASTM D5185m	0	current 1 0	history1 18	history2 12 0
ADDITIVES Boron Barium Molybdenum	ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 60	current 1 0 60	history1 18 0 61	history2 12 0 52
ADDITIVES Boron Barium Molybdenum Manganese	ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 60 0	current 1 0 60 0	history1 18 0 61 0	history2 12 0 52 4
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm	method ASTM D5185m	0 0 60 0 1010	current 1 0 60 0 1021	history1 18 0 61 0 881	history2 12 0 52 4 711
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 60 0 1010 1070	current 1 0 60 0 1021 1149	history1 18 0 61 0 881 984	history2 12 0 52 4 711 1567
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	0 0 60 0 1010 1070 1150	current 1 0 60 0 1021 1149 1119	history1 18 0 61 0 881 984 882	history2 12 0 52 4 711 1567 923
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	0 0 60 0 1010 1070 1150	current 1 0 60 0 1021 1149 1119 1319 3846 current	history1 18 0 61 0 881 984 882 1116 2873 history1	history2 12 0 52 4 711 1567 923 1242 2712 history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	0 0 60 0 1010 1070 1150 1270 2060	current 1 0 60 0 1021 1149 1119 1319 3846 current	history1 18 0 61 0 881 984 882 1116 2873 history1	history2 12 0 52 4 711 1567 923 1242 2712 history2 24
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	0 0 60 0 1010 1070 1150 1270 2060	current 1 0 60 0 1021 1149 1119 1319 3846 current 3	history1 18 0 61 0 881 984 882 1116 2873 history1 9	history2 12 0 52 4 711 1567 923 1242 2712 history2 24 46
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	0 0 60 0 1010 1070 1150 1270 2060	current 1 0 60 0 1021 1149 1119 1319 3846 current	history1 18 0 61 0 881 984 882 1116 2873 history1	history2 12 0 52 4 711 1567 923 1242 2712 history2 24
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED	ppm	method ASTM D5185m	0 0 60 0 1010 1070 1150 1270 2060 limit/base	current 1 0 60 0 1021 1149 1119 1319 3846 current 3	history1 18 0 61 0 881 984 882 1116 2873 history1 9	history2 12 0 52 4 711 1567 923 1242 2712 history2 24 46
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm	method ASTM D5185m	0 0 60 0 1010 1070 1150 1270 2060 limit/base >25	current 1 0 60 0 1021 1149 1119 1319 3846 current 3 2 0	history1 18 0 61 0 881 984 882 1116 2873 history1 9 0	history2 12 0 52 4 711 1567 923 1242 2712 history2 24 46 2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	0 0 60 0 1010 1070 1150 1270 2060 limit/base >25	current 1 0 60 0 1021 1149 1119 1319 3846 current 3 current	history1 18 0 61 0 881 984 882 1116 2873 history1 9 0 1	history2 12 0 52 4 711 1567 923 1242 2712 history2 24 46 2 history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m method ASTM D5185m	0 0 60 0 1010 1070 1150 1270 2060 limit/base >25 >20 limit/base	current 1 0 60 0 1021 1149 1119 1319 3846 current 3 2 0 current 0.3	history1 18 0 61 0 881 984 882 1116 2873 history1 9 0 1 history1 0.1	history2 12 0 52 4 711 1567 923 1242 2712 history2 24 46 2 history2 1.4
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm	method ASTM D5185m method ASTM D5185m ASTM D5185m *ASTM D5185m ASTM D5185m *ASTM D5185m ASTM D76185m ASTM D76185m ASTM D7844 *ASTM D7624 *ASTM D76185	0 0 60 0 1010 1150 1270 2060 limit/base >25 >20 limit/base	current 1 0 60 0 1021 1149 1119 1319 3846 current 3 2 0 current 0.3 7.2	history1 18 0 61 0 881 984 882 1116 2873 history1 9 0 1 history1 0.1 4.5	history2 12 0 52 4 711 1567 923 1242 2712 history2 24 46 2 history2 1.4 12.8
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm	method ASTM D5185m method ASTM D5185m ASTM D5185m *ASTM D5185m ASTM D5185m *ASTM D5185m ASTM D76185m ASTM D76185m ASTM D7844 *ASTM D7624 *ASTM D76185	0 0 60 0 1010 1070 1150 1270 2060 limit/base >25 >20 limit/base >3 >20 >30	current 1 0 60 0 1021 1149 1119 1319 3846 current 3 2 0 current 0.3 7.2 18.6	history1 18 0 61 0 881 984 882 1116 2873 history1 9 0 1 history1 0.1 4.5 17.8	history2 12 0 52 4 711 1567 923 1242 2712 history2 24 46 2 history2 1.4 12.8 26.6



OIL ANALYSIS REPORT

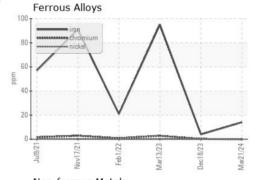


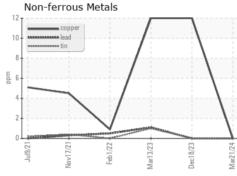


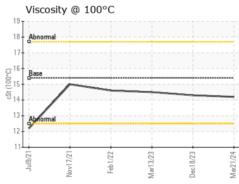
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG

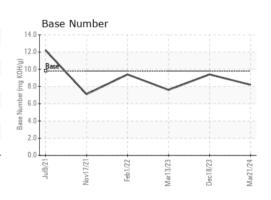
FLUID PROPERTIES		method				history2
Visc @ 100°C	cSt	ASTM D445	15.4	14.2	14.3	14.5

GRAPHS













Certificate L2367

Laboratory Sample No.

: GFL0108758 Lab Number : 06127560 Unique Number : 10941711 Test Package : FLEET

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 25 Mar 2024 **Tested** : 26 Mar 2024

Diagnosed : 26 Mar 2024 - Wes Davis

GFL Environmental - 415 - Michigan East

6200 Elmridge Sterling Heights, MI US 48313

Contact: Frank Wolak fwolak@gflenv.com T: (586)825-9514

To discuss this sample report, contact Customer Service at 1-800-237-1369. * - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)